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6. (Amended) The method of claim 1 wherein an encoded video signal comprises a series of said encoded data buffers.

Please add new claims 21 through 24 as follows. Note that claims 21 through 24 are the same as claims 28 through 31 that were submitted on 1999 May 17 with application 09/312,922 ('922). An obvious error is corrected in claim 21(c) as explained in the remarks below. The amendment to these claims is not being made to overcome any prior art rejections, but is being made in response to an office action in the co-pending '922 application indicating that the compression method is a distinct invention from it combination with the video transmissions system and requiring a restriction.

Sub B'

21. A method of compressing a stream of data representing a stream of pixels, each pixel having a corresponding illumination intensity value, the method comprising the steps of:

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a. matching the illumination intensity value representing a pixel with a current line number;

b. determining if the current line number matches a previous line number of an immediately prior pixel;

c. incrementing a repeat counter if the current line number matches the previous line number;

d. encoding a repeat data structure with the repeat counter, if the current line number does not match the previous line number and the repeat counter has a value greater than zero; and

e. encoding a line number data structure with the current line number if the current line number does not match the previous line number;

wherein a compressed stream of data is formed from combinations of the line number data structure and the repeat data structure.

22. The method according to claim 21 further comprising the step of resetting the repeat counter to zero after the repeat data structure is encoded.

23. The method according to claim 21 wherein the repeat data structure and the line number data structure include an identification bit,

wherein when the identification bit is in a first state, a repeat data structure is encoded and when the identification bit is in a second state, a line number data structure is encoded.

24. The method according to claim 23 further comprising the steps of:

a. receiving the compressed stream of data, one data structure at a time;

b. reading the identification bit within the data structure to determine if the data structure is a line number data structure or a repeat data structure;

c. generating a representative average illumination intensity value corresponding to the line number if the data structure is a line number data structure; and

d. generating a number of representative average illumination intensity values corresponding to the line number of a last received line number data structure if the data structure is a repeat data structure, wherein the number is equal to the repeat counter within the repeat data structure.

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Claims: We claim:

1. A method of compression of graphic images which make up a video stream, comprising the steps of:
   (a) sub-sampling pixels from an image selected from said graphic images;
   (b) selecting a code based on a number of bits from each pixel selected from said pixels;
   (c) run-length encoding repeated instances of said code;
   (d) repeating steps (b) and (c) until each said pixel is encoded in an encoded data buffer; and
   (e) streaming said buffer which represents said graphic images.
2. The method of claim 1 wherein the rate of sub-sampling frames is greater than or equal to 15.
3. The method of claim 1 wherein image dimensions are less than or equal to 320 by 240.
4. The method of claim 1 wherein said number of bits is five and said code is determined by extracting the five most significant bits from each pixel.
5. The method of claim 1 wherein said number of bits is five and said code is obtained from an encode table.
6. The method of claim 1 wherein an encoded video signal comprises a series of said encoded data buffers.
7. A storage medium in which the encoded video signal as claimed in claim 6 is stored.
8. A method of decompressing an encoded video signal, comprising the steps of:
   (a) reading a stream of run-length encoded codes;
   (b) determining a series of pixels based on the values and run-lengths of said codes;
   (c) combining said pixels into an image; and
   (d) displaying a series of said images.
9. The method of claim 8 wherein the display frame rate is greater than or equal to 15.
10. The method of claim 8 wherein the width and the height of said image are less than or equal to 320 by 240, respectively.
11. The method of claim 8 wherein said codes are five bits in length and said pixel's values are determined by using the least significant bits of said codes as the five most significant bits of each pixel.
12. The method of claim 8 wherein each of said pixel values are obtained from a decode table, whereby said image is an enhanced representation of the original image.

13. The method of claim 5 wherein the lines of said encode table are randomly ordered forming an encryption table so that the direct correlation between the original values and their representative codes are encrypted.

14. The method of claim 12 wherein the lines of the decode table are ordered in a sequence matching said encryption table so that the correct final pixel values are displayed.

15. A machine for compressing of a plurality of video frames which make up a video signal, comprising

(a) a video digitizer configured to digitizing a frame from said video frames;

(b) a video memory which is able to receive a plurality of pixels from said video digitizer;

(c) run-length encoding circuit for counting repeated instances of a pixel value when scanning said plurality of pixels and output a series of run-lengths and code values as encoded data;

(d) a memory which is able to store said encoded data;

(e) an input/output device.

16. The machine of claim 15 wherein said run-length encoding circuit performs a table lookup to translate said pixel values into encrypted enhancement codes.

17. The machine of claim 15 wherein said input/output device is a storage medium.

18. The machine of claim 15 wherein said input/output device is a communications transmission channel.

19. A machine for decompressing an stream of encoded data that represents a video signal, comprising:

(a) an input/output device for reading said stream of encoded data;

(b) a run-length decoding circuit which can decode the encoded data and output a stream of pixel values; and

(c) a memory that is able to store an image comprising said stream of pixel values that can be displayed as frames of a video sequence.

20. The machine of claim 19 wherein said run-length decoding circuit performs a decode table lookup.

21. A method of compressing a stream of data representing a stream of pixels, each pixel having a corresponding illumination intensity value, the method comprising the steps of:
    a. matching the illumination intensity value representing a pixel with a current line number;
    b. determining if the current line number matches a previous line number of an immediately prior pixel;
    c. incrementing a repeat counter if the current line number matches the previous line number;
    d. encoding a repeat data structure with the repeat counter, if the current line number does not match the previous line number and the repeat counter has a value greater than zero; and
    e. encoding a line number data structure with the current line number if the current line number does not match the previous line number;

    wherein a compressed stream of data is formed from combinations of the line number data structure and the repeat data structure.

22. The method according to claim 21 further comprising the step of resetting the repeat counter to zero after the repeat data structure is encoded.

23. The method according to claim 21 wherein the repeat data structure and the line number data structure include an identification bit,

    wherein when the identification bit is in a first state, a repeat data structure is encoded and when the identification bit is in a second state, a line number data structure is encoded.

24. The method according to claim 23 further comprising the steps of:
    a. receiving the compressed stream of data, one data structure at a time;
    b. reading the identification bit within the data structure to determine if the data structure is a line number data structure or a repeat data structure;
    c. generating a representative average illumination intensity value corresponding to the line number if the data structure is a line number data structure; and
    d. generating a number of representative average illumination intensity values corresponding to the line number of a last received line number data structure if the data structure is a repeat data structure, wherein the number is equal to the repeat counter within the repeat data structure.